Using Goal-Directed Reflection to Make Reflection More Meaningful

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Teacher educators recognize reflection as vital to good teaching, but reflection itself needs structure and direction if it is to be meaningful.

The role of a physical education teacher education (PETE) program is to develop high-quality teachers, and quality reflection lies at the heart of good teaching. The National Association for Sport and Physical Education (NASPE) beginning teacher standards (2003) suggest that a good reflective cycle involves a description of teaching, a critique of teaching performance, and the setting of teaching goals in order to produce thoughtful teachers who continue to develop their craft throughout their career. Different reflective teaching strategies—such as writings, observation logs, action research, curriculum inquiries, and supervisory approaches—have been used to develop thoughtful and reflective physical education teachers (Tsangaridou & Siedentop, 1995). Despite this, many teacher educators find it difficult to prompt and encourage their teacher candidates to engage in a thoughtful reflective cycle about their teaching. Common concerns voiced by teacher educators are that teacher candidates only describe the day's events, do not connect their teaching behaviors to student responses, fail to identify the critical aspects of a teaching situation, and are unable to prioritize personal teaching goals. Goal-directed reflection (GDR) is another reflective strategy that aims to address these concerns and link systematic supervision with reflection and goal-setting.

The purpose of this article is to provide an overview of the GDR cycle, to explain how GDR fits within a PETE program that uses a systematic model of supervision and is aligned with the Praxis III/Pathwise domains, and to describe how the GDR process can be used as one component to meet standard eight ("Understand the importance of being a reflective practitioner and its contribution to overall professional development and actively seek opportunities to sustain professional growth") of the beginning teacher standards (NASPE, 2003, p. 17). This article will (1) outline the theoretical framework of a PETE program that uses systematic supervision and GDR; (2) provide an overview of the purposes and use of GDR; (3) discuss the role of the teacher candidate (TC), mentor teacher (MT), and university supervisor (US) in the GDR process; (4) identify TC and programmatic outcomes; and (5) describe stories of successes and struggles in implementing GDR. It should be noted that GDR also has the potential to be used with inservice physical educators in professional development plans, although that is not the focus of this article.

Goal-Directed Reflection Within Systematic Supervision

Goal-directed reflection fits within a theoretical framework of teacher training, supervision, and reflection of the social efficiency tradition. The social efficiency tradition uses research on teaching to determine the teaching skills and competencies associated with student learning. Three key beliefs within the social efficiency tradition are that teaching is an applied science, teachers are accountable for knowledge, and teacher effectiveness is related to student achievement. Research on teaching in physical education has identified specific instructional, management, and planning

behaviors of effective teachers that frequently result in quality student practice in interesting and authentic tasks (Siedentop & Tannehill, 2000). Within the social efficiency tradition, teachers are decision-makers who select appropriate strategies or teacher behaviors based on the situation (O'Sullivan & Tannehill, 1994; Tsangaridou & Siedentop, 1995). Reflection is key to a teacher thinking critically about teaching skills and strategies within a given context, examining the influence of those behaviors on students, and examining future behaviors within the same context.

Used by many teacher education programs, systematic supervision is an approach that aligns with the social efficiency tradition. The systematic supervision model (Randall, 1992) is a planned, comprehensive, developmental process that emphasizes direct observation of teaching using systematic observation tools. A systematic approach to organizing the data generated during a supervision cycle can help to develop teaching skills. This is done through the process of establishing a baseline, selecting a behavior for remediation or maintenance, establishing criteria for performance evaluation and indicating the beginning and end of observation for specific behaviors (Ocansey, 1989). Goal-directed reflection fits well within this systematic approach to supervision. Thus, the recipe to improve teaching using GDR lies with identifying specific goals or target behaviors, observing relevant behaviors, and providing relevant feedback based on the observation data (Ocansey, 1989; Randall, 1992).

What Is Good Reflection?

A goal of reflection is to develop teachers who are thoughtful in class and who actively participate in school reform, collaborate with others in a community of learners, constantly adapt to the changing demands of a diverse student population, and have the skills and mindset to continue to learn and develop as a teacher (Dodds, 1989; Tsangaridou & Siedentop, 1995). Reflection requires more than merely thinking about teaching or describing the day's events. It entails analyzing specific aspects of teaching and student learning. The beginning teacher standards (NASPE, 2003) stress the need to develop teachers who make thoughtful decisions about curriculum and instruction, plan and modify instruction and learning processes to best benefit students, and commit themselves to ongoing reflection. The data collected through a systematic approach lays the foundation for specific, directed, and focused reflection to develop technical or practical reflective skills in teachers (Tsangaridou & O'Sullivan, 1994). Goal-directed reflection is one strategy to facilitate systematic reflection about specific teaching behaviors and skills and how they affect student learning.

Overview of GDR

A GDR cycle is embodied in a teacher candidate's weekly submission of a worksheet that includes (1) teaching goals that target specific behaviors, (2) the Praxis III/Pathwise domain, (3) a systematic data-collection method, (4) data collection, and (5) reflection and analysis of these data. Goal-directed reflection requires a four-step process: (1) identify target behaviors, (2) align behaviors with Praxis III domains, (3) collect data, and (4) reflect on the data and set new goals.

The following sections will outline the GDR process. The GDR of Sue, who is in her third week of student teaching, will be used as an example. In her first two weeks of student teaching, Sue has concentrated on learning student names and providing positive feedback to students. She is struggling to provide specific corrective feedback to students about the critical elements of throwing. See table 1 for Sue's completed GDR for specific feedback.

Step 1: Identify Target Behaviors and Appropriate Observation Tools

Before the beginning of the week's teaching, a TC selects an appropriate teaching goal that targets specific teaching behaviors that need improvement. The behaviors to be selected should be identified in cooperation with the MT and US. The target behaviors may be based on a TC's perceived developmental need, on a set of competencies outlined by the licensure program, or on suggestions from the US or MT. The most important part of this step is that the behaviors must be stated in *specific*, *measurable*, and *observable* terms.

A TC may identify two to three teaching behaviors or goals per week. Although a TC may need to change multiple behaviors in his or her teaching repertoire, selecting only two to three behaviors will help the TC focus attention on the most important behaviors to be changed. The US and MT can help to identify these.

Next, the TC, together with the US and MT, will select an appropriate systematic observation tool that will provide a valid representation of the behavior. Boyce (2003) and van der Mars (1989) provide additional resources for information on teaching behaviors and associated systematic observation-recording tactics. The final part of this first step is for the TC, US, and MT to agree on the upcoming week's schedule of observations and the type of coding instrument to be used. In our example, Sue, her supervisor, and mentor teacher have decided to target specific feedback and have set the goal of saying two specific feedback statements per minute while students are practicing. The MT will record data during one class each day using event-recording to determine the number of specific feedback statements per minute of student practice.

Step 2: Align Teaching Behavior with Praxis III Domains

The second step is to align the target behavior with Praxis III/Pathwise domains and criteria. If the TC's state does not require Praxis III/Pathwise, the Praxis III/Pathwise framework of teacher outcomes may nevertheless provide a useful structure to assess teacher development. In Ohio, for example, Praxis III constitutes the Department of Education's performance-based system for the assessment of all beginning teachers during their entry year for the purpose of licensure. All new teachers must pass Praxis III in their first year in

Table 1. GDR Worksheet Using One Target Behavior as Example

My Goals for the Week

Provide two specific feedback statements per minute of student practice.

Praxis Domain and Criteria

C4—Monitoring students' understanding of context through a variety of means. Providing feedback to students to assist in learning activities and adjusting learning activities as the situation demands.

How I Plan to Collect My Data

Cooperating Teacher or University Supervisor records each instance of feedback during practice. At the end of the lesson, calculate specific feedback statements per minute.

Data Collected

Rate of specific feedback per minute: M = 1.2, T = 1.5, W = 1.67, Th = 2.3, F = 1.89.

Analysis of Data

I struggled with observing the key parts of the skill. Thus, I didn't provide as much feedback early on, or my feedback was too general because I was thinking about what to say. After I added more detail to my lesson plans in the area of teaching cues, I was able to provide more specific feedback. I learned the teaching cues to the skills I was teaching and put these on posters on the wall. The posters really helped prompt me to use specific teaching cues and also helped prompt the students to focus on these aspects of the skill. I noticed that when I gave students specific feedback, it really helped them change that part of the skill. Toward the end of the week I got better at being more specific with my feedback and meeting the goal. I feel better about being able to recognize mistakes and correct them with feedback. I know specific feedback is really important to help students learn. I will keep this goal for next week and continue to try to get two specific feedbacks per minute.

order to maintain their teaching license. Pathwise uses the same domains and criteria, but it is used for mentoring and supervision purposes rather than to make decisions about licensure. Designed to evaluate all aspects of the first-year teachers' classroom performance, Praxis III and Pathwise consist of 19 criteria in four domains (table 2) that describe what a beginning teacher should know and be able to do (Educational Testing Service, 2001). The purpose of aligning teaching behaviors to Praxis III/Pathwise domains as part of GDR is to facilitate the TC's familiarization of Praxis III content in order to ease some of the anxiety about the first-year assessment. A secondary purpose is to demonstrate alignment with program, university, and state core competencies. The GDR process allows TCs to constructively critique their own instructional effectiveness and can be used to develop behaviors that support criteria in all four domains. Through the GDR cycle, the TC becomes familiar with each domain and the corresponding criteria as well as behaviors that support positive evidence of each criterion. In the case of Sue, she selected domain C (teaching for student learning) and criteria four (monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands) because feedback is part of assisting student learning.

Step 3: Collect Data on Teaching Performance

The third step in the GDR cycle is to collect data throughout the week as evidence of achievement of the teaching goals. Evidence may be collected by the TC (via video or audio), the MT, or the US's systematic observations. These data are then summarized in the table for submission at the end of the week. The number of observations for each behavior is determined by the behavior and the context, but a general guideline is to collect data at least once per day per targeted behavior.

The goal for this data-collection phase is to have the TC discuss and reflect on the data in order to learn from prior experiences and make appropriate changes to his or her teaching each day. Jotting down on the data sheet any thoughts the TC had about why things happened the way that they did will serve to prompt memories about the lesson and context for step four of the GDR process. When Sue summarized her data, she found that her rate of feedback was below two on Monday, Tuesday, Thursday, and Friday, but above her goal on Wednesday.

Step 4: Reflect on Data and Set New Teaching Goals

The final step of GDR occurs at the end of the week. The TC, with the insight of the MT and/or the US, examines the entire week's data to draw conclusions as to whether the goal was achieved and to discuss the supports and barriers to meeting or not meeting the goal. The following questions might help the TC to reflect on these data:

- Did I meet my goal? Why or Why not?
- What did I do that helped my data improve?
- How did my teaching behaviors affect student-learning outcomes?
- What specific strategies or prompts helped me change

Table 2. Praxis III/Pathwise Domains and Criteria

Domain	Criteria
Domain A: Organizing Content Knowledge for Student Learning	A1. Becoming familiar with relevant aspects of students' background and experience
	A2. Articulating clear learning goals for the lessons that are appropriate to the students
	A3. Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future
	A4. Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate for the students and are aligned with the goals of the lesson
Domain B: Creating an Environment for Student Learning	B1. Creating a climate that promotes fairness
	B2. Establishing and maintaining rapport with students
	B3. Communicating challenging learning expectations to each student
	B4. Establishing and maintaining consistent standards of classroom behavior
	B5. Making the physical environment as safe and conducive to learning as possible
Domain C: Teaching for Student Learning	C1. Making learning goals and instructional procedures clear to students
	C2. Making content comprehensible to students
	C3. Encouraging students to extend their thinking
	C4. Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands
	C5. Using instructional time effectively
Domain D: Teacher Professionalism	D1. Reflecting on the extent to which learning goals were met
	D2. Demonstrating a sense of efficacy
	D3. Building professional relationships with colleagues to share teaching insights and to coordinate learning activities
	D4. Communicating with parents or guardians about student learning

Source: Educational Testing Services (2001)

this behavior?

• What aspects of the environment or the children's behavior helped or hindered my success at meeting my goal?

• What overall lessons did I learn from this week about my teaching?

In the final aspect of the analysis, the TC then identifies specific strategies to improve or maintain this aspect of his or her teaching performance. This portion of the analysis may need input from the MT or US because sometimes TCs do not have the expertise and experience to identify specific strategies for improvement or maintenance of the behavior (O'Sullivan & Tannehill, 1994). Sue did not demonstrate consistency in giving two specific feedback statements per minute, so she will continue to work towards her goal of two specific feedback statements per minute next week.

After completion of the reflective piece, if the weekly teaching goal was met and the behavior has met PETE expectations, then the TC may identify new (and possibly related) teaching goals. If the goal was not met, then the prior week's goal may be refocused and reentered for the following week. The GDR cycle is repeated weekly throughout the student-teaching experience. Goal-directed reflection usually focuses on two to three behaviors per week with a greater emphasis on planning and incorporating specific cues in the teaching.

Table 1 shows the part of the weekly GDR reflection worksheet that is used for observation and coding. In the "Analysis of Data" section, the TC would respond to the reflective questions stated previously. As a final product, the worksheet is not lengthy. Due to the brief and targeted nature of the GDR process, candidates really focus on the critical aspects of their teaching and reflect on how they performed relative to a specific goal. The GDR process also tends to take the anxiety out of US observations, because the TC knows the aspect of his or her teaching that will be highlighted during the observation.

Outcomes of the GDR

The GDR process has five basic outcomes:

1. It promotes a TC's targeted reflection about specific

teaching behaviors.

2. It empowers TCs to make positive changes in teaching behaviors because they can see their progress.

3. It tracks progress towards individual and programmatic goals.

4. It improves the communication and relationship between the US, TC, and MT.

5. It provides programmatic evidence of reflection for state and/or national standards for beginning teachers.

Teacher Candidate Perspectives

Goal-directed reflection is used to promote targeted reflection about teaching and learning that goes beyond recalling the day's events. This focus on teaching behaviors heightens the awareness of how teaching behaviors can affect student learning and reinforces the connection between teaching behaviors that were practiced and learned during the teacher education program, thus enhancing the chances that these behaviors will be applied in the school context.

Teacher candidates can become empowered when they meet their weekly teaching goals. Reflecting on data daily and reporting data each week provides TCs with feedback about their progress towards achieving programmatic standards and individual goals. Achieving standards leads to a feeling of accomplishment and recognition that improvement can be made. Setting goals based on personal needs and achieving those goals are keys to developing self-directed, reflective teachers.

Since implementing the GDR system in their teacher education programs, the authors have found that the depth and insightful nature of the reflection by TCs have improved significantly. A quote from one of the author's TCs summarizes many of the TC perspectives:

> GDR makes sense. I used to worry about all the things I had to fix in my teaching and ended up not fixing anything. Now I focus on what we all [MT, US] think is most important and really make meaningful changes. Reflecting on the specific goal really makes me examine my teaching in a way that helps rather than just listing all the things I taught that day.

University Supervisor and Master Teacher Perspectives

The US and MT also benefit from the GDR process, because the weekly teaching goals provide a shared consensus about what is important to change and the weekly data act as a springboard for meaningful dialogue about the TC's teaching. The GDR also means that all members of the process are on the same page about what is important to do during a week. For a busy US who may have many TCs, the teaching goals can help focus the supervisory visit(s) each week. These data can provide evidence of progress towards and achievement of programmatic standards and expectations.

The GDR also provides a means of improving the triadic relationship. Too often MTs, an integral part in the success of field experiences, are left on the sidelines feeling unable to contribute during a US's site visit (Metzler, 1990; Randall, 1992). Using the GDR process, the MT is integrally involved in the identification of meaningful goals and systematic data collection and analysis. The shared agreement between the TC, MT, and US of what to observe, how to do it, and when to do it, holds all members of the triad accountable for the use of systematic observation techniques. One of the keys to the successful involvement of the MT is for the US and TC to help the MT in developing the skills and confidence to collect systematic data. The weekly progress demonstrated by the TC via the GDR process can also motivate the MT, who can see a product for his or her hard work with the TC.

Programmatic Outcomes

The focus of the development and implementation of the GDR process has been to enhance the supervisory process and reflection of the TC. However, a valuable by-product of this process is the programmatic documentation for the PETE program. The PETE program can use the GDR cycle to meet NCATE/NASPE beginning teacher standard eight (reflection). The GDR process can be used to facilitate the development of self-directed, reflective teachers through the assessment and analysis of teaching behaviors. An intention of the GDR process is to develop knowledge, skills, and dispositions that lead to a teacher who is committed to and values ongoing self-reflection, assessment, and learning. The GDR process can also help TCs to become familiar with Praxis III/Pathwise language.

Goal-directed reflection targets only observable behaviors and not attributes, attitudes, perceptions, or curriculum issues.

While GDR is a useful tool, there are some limitations to its use in teacher development. First, GDR is limited to the technical reflection of specific teaching behaviors that align with a systematic approach. That is, GDR targets only observable behaviors and not attributes, attitudes, perceptions, or curriculum issues. Additionally, the US and MT must have the expertise to use systematic observation tools. In the PETE program at Ohio State University many of the MTs and all of the USs have taken a graduate course on supervision that includes systematic observation tools and systematic supervision. Those MTs who have not completed this course are assigned to the strongest USs, who train them in systematic observation and supervision during the first time they have a TC. In addition, TCs are trained to use some of the systematic observation tools during a methods class, so they will understand the process and can support the MT.

Overall, GDR has been a useful tool to develop teaching skills and reflective physical education teachers. It has been useful in developing technical reflection that aligns with systematic observation. Goal-directed reflection is another tool to create a shared language among all the parties involved in the development of the TC and to provide consistent

messages throughout the program. Use of GDR is especially beneficial in meeting programmatic, university, state, and national standards and expectations for beginning teachers.

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whereby student skills are measured before, during, and after the internship and a plan is subsequently created to build competencies during and after the internship. The impetus for this approach was to create an internship that, upon completion, would give students a clear picture of the competencies that professionals deem important for entry-level employees. Moreover, students would gain a personal assessment of their strengths and weaknesses on these competencies. Lastly, students would receive a supervisor's perspective on their performance of the competencies. Equipped with this knowledge on three levels, it is assumed that students will have a clear understanding of their preparedness for the entry-level job market and a plan for how to improve their skills to make them viable candidates for entry-level positions in the field.

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